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# SCIENCE.

FRIDAY, JANUARY 29, 1886.

## COMMENT AND CRITICISM.

THE ATTITUDE of Professor Newcomb towards the alleged discoveries in regard to thought-transference is one of extreme intellectual dissent, and will necessarily accentuate the impression of exceedingly great conservatism, which already prevails in regard to the American society for psychical research. His presidential address was essentially a frank though delicate denial, not only of the results concerning telepathy claimed by the English society, but also of the utility of pursuing any investigations upon the subject further. There appear, however, certain flaws in his argument, which are sufficient to prevent one from bluntly adopting his conclusion. He places much emphasis, for instance, on the extreme rarity of thought-transference in the ordinary course of life, and implies somewhat sarcastically that it ought to be much more frequent. To a physiologist, however, the possibilities appear differently: it is quite conceivable that telepathic irritations are extremely feeble, and are accordingly usually completely obliterated by the ordinary and much stronger irritations of daily life; just as the feeble sensations from the stars are obliterated by sunlight, so that, as aptly remarked by Dr. Bowditch, a man conscious only during the day would not discover the stars. Again, he states that telepathy is communication between two minds without the intervention of any physical agency. This certainly cannot be accepted as a correct definition; for telepathy means communication through other than the usually known sensory processes, and there is nothing in the hypothesis to exclude all physical agencies. So long as the physicists have to acknowledge action at a distance of gravity and electric induction, it is certainly no dishonor to any intellect to accede to the possibility of the action at a distance of mind, sufficiently to consider that possibility worthy of investigation, even though he has little expectation (and most scientific men have very little) of a positive result. We have alluded to the weak points of Professor Newcomb's address: the two strongest points are in criticism of the work of the English society. He finds

fault very justly with their failure to ascertain the influence of varying conditions on thought-transference; and he further makes the very acute observation that in the reproductions of the drawings, though the lines are faulty, they always join perfectly, as would be the case with the work of a poor draughtsman who could see; and this, too, in the drawings made blindfold. The inference, which Professor Newcomb refrains from making, is, of course, that the person did see, and there was some trickery. By way of general criticism of the English society's work, we may frankly say that it is like that of amateurs and enthusiasts, and bears the character of such work, especially because it fails to deal rigidly and skilfully with the problems as they appear to professional physiologists and psychologists.

THE TWENTIETH ANNUAL REPORT of the Massachusetts commissioners of inland fisheries gives some facts of interest on the fisheries of that state. In many places, where the culture of land-locked salmon had been deemed a failure, the fish has appeared in numbers. Of the river-salmon there has been an increased run in the Merrimack River the past year, and, were it not for the depredations that have been committed, the river would now be self-sustaining. In Maine the salmon-fisheries have been greatly increased, and the catch for the past season is said to be the largest for fifty years. Shad-hatching was continued at North Andover, with good results. The river was found to be full of male shad from one to two years old. These young males return with the mature females, while the females do not return till they are three or four years old. Owing to the prejudice that existed, the artificial hatching of shad was abandoned for several years, with the result, that, on the Connecticut River, the value of the shad-fisheries fell off more than fifty per cent on the upper waters, and twenty-five on the lower. The resumption of hatching, however, has prevented further decrease, and an improvement is expected next year. Hitherto but little has been done for the cultivation of the carp in Massachusetts, under the impression that the state was too far north for such to be successful. That the idea is erroneous is clearly shown by several large ponds in the state, already heavily stocked with this fish.

In the autumn of 1881, sixty-seven carp were placed in a pond near Worcester: they have grown and bred very rapidly, without especial care having been given to them; so that the pond is now full of fish from four to twenty-five inches in length, and weighing as high as sixteen pounds. The most important fact connected with the other fisheries is the decrease in the catch of some of the more valuable kinds, such as the striped bass, Spanish mackerel, and bluefish; the last especially has everywhere been found less abundant than in recent years.

A MOVEMENT is before congress to establish a commission to determine the feasibility and value of inoculation with the causative agent of yellow-fever as a preventive of that disease. Dr. Walcott, president of the American public health association, and Dr. Holt, president of the Louisiana state board of health, appeared before the senate committee on epidemic diseases last week in this interest, accompanied by Drs. Billings, Toner, and Smart, of Washington. It is proposed to establish a commission to go to Mexico and South America to investigate the system of inoculation of Freire and Carmona, whose experiments have proved so successful in those countries, and also to investigate the principles of Pasteur, Koch, and others, in their special application to yellow-fever. The proposed bill will be reported favorably to the senate, and there is strong reason to hope for similar action in the house. The plan offers the possible emancipation of the people living in yellow-fever districts from the dominion of a pestilence which frequently costs tens of thousands of lives and hundreds of millions of dollars.

THE EXTREMELY COLD WEATHER at the south during the present season has strengthened the popular impression that the region in question is subjected to greater ranges of temperature and a less equable distribution of rainfall than formerly. With a view of testing the correctness of this impression, the Alabama weather-service has collected from the early Spanish, French, and colonial records, a mass of references to the weather. This 'record of the weather' goes back to 1701, when it was recorded by one of the French officials resident in Louisiana, that "the water has been so intensely cold that water poured in a tumbler to rinse it froze instantaneously." The records of 1711, 1718, and 1723, refer to destructive floods in

the lower Mississippi; and in 1732 a hurricane is reported in Louisiana which "destroyed the crops, resulting in extreme scarcity of provisions." A number of references to hurricanes are given in the record; but, in all probability, they were of the same local nature as the tornadoes of the present day. The record is published as 'Special paper of the Alabama weather-service No. 1,' and is evidence that the service is desirous of doing its share toward adding to the valuable meteorological literature of the day. The editor of the 'record' is, however, an historian as well as a meteorologist, as he opens his work with a sketch of the early history of the Gulf states, and, under the date 1736, says nothing of floods, cold, or winds, but does tell us of "Bienville's expedition through Mobile, up the Bigbee River to Old Town Creek, thence north-west to the Chickasaw villages a few miles north-west of Tupelo, where the battle of Ackia was fought and the French badly defeated. Near the same spot D'Andreville shared a similar fate in 1753; and DeSoto, in March, 1541, fared but little better." Is not this an unnecessary mixing of sciences?

"A DEBT OF \$135,000 encumbers the Cincinnati zoölogical gardens, and it is announced that they must be sold unless the business-men of the city come to the rescue. A system of private subscriptions is proposed by the managers, whereby there is a faint hope of securing a longer lease of life." In such words is the announcement made in the daily press of the present condition and probable fate of the Cincinnati gardens. In *Science* of Nov. 13, we referred to the financial difficulties of the Philadelphia zoölogical garden. It is certainly greatly to be regretted that sufficient support cannot be obtained in this country for these institutions. Boston and Washington are anxious to have zoölogical gardens; but the projectors will receive little encouragement from the financial history of those now in existence.

IN VIEW OF THE RECENT announcement that the faculty of Harvard college has decided to again allow the students to take part in intercollegiate football matches, it is interesting to note the frequent cases of football accidents to which the *Lancet* calls attention. That paper states that on Jan. 11 an inquest was held at Bridgewater, England, on the body of William Poole, aged twenty, who came by his death from injuries received whilst

playing in a football match on Dec. 28. The deceased, who was playing a very fast game, slipped and fell, and at the same time received a severe kick, probably in the abdomen, while several other players fell upon him. His death resulted from hemorrhage, arising from injuries to the internal organs. The *Lancet* goes on to say, "If proof of this [the dangerous character of the game as played in England] be wanted, it is furnished by the fact that this is at least the third fatal accident directly due to football already recorded thus early in the season."

THE HEAVY MORTALITY among the Baptist missionaries in the Kongo country has led Dr. Prosser James to write a series of letters, embodying descriptions of the principal diseases of tropical countries. These letters are entitled 'Health on the Kongo,' and are intended for circulation among the missionaries and the station officials of the Kongo Free State. It is to be hoped that Dr. James has in this way contributed to the well-being of the voluntary exiles in central Africa. Mr. Stanley still persists, that, with care, a European may successfully resist the inroads of the malarial influences to which he subjects himself on emigrating to the banks of that river; and every particle of wisdom which it is possible to impart on how to travel in Africa, how to locate a station, how to eat, dress, work, and sleep, must be a god-send to the adventurers. It is just such information that the letters are intended to give.

AT THE LAST ANNUAL meeting of the trustees of the Mount Auburn cemetery of Boston, Mass., it was voted that the trustees consider the expediency of establishing a crematorium, or of adopting any other method of taking care of the dead so that the sanitary law shall not be violated. The committee appointed, consisting of Mr. Roger Wolcott and Dr. R. M. Hodges, report that the acts of incorporation of the cemetery only permitted interment. Cremation has been legalized by the legislature of Massachusetts during the past year, and the cemetery will be prepared to receive for sepulture the ashes resulting from the process of incineration, and would prepare depositories above ground, or columbaria in the hill-sides, for the reception and preservation of urns and other memorials. These actions of the legislature and trustees are worthy of note, as showing the wide interest cremation is now attracting in America, as well as in Europe.

#### RECENT PSYCHICAL RESEARCHES.

THE American society for psychical research held its annual meeting on Jan. 11 last, at Boston, the headquarters of the society. There has been a steady and rapid growth in the number of associates; and, as the various committees are now well organized and at work, it is hoped that the society will display still greater vitality in the future. This fair prospect has, however, been disturbed in one respect by the president of the society, Prof. Simon Newcomb, whose address was read at the meeting. He devoted his attention to the work that has been done upon thought-transference, especially by the original English society, and endeavored to discredit the investigations and conclusions published by the English committee. In brief, Professor Newcomb's position is, that the phenomena of thought-transference, as heretofore recorded, are very rare and quite unexplained. Now, they may be due, he says, either to an unknown law of nature displayed under conditions we cannot control, or else to special circumstances which are unknown to us. In the former case we might compare the phenomena with those of electricity, which were at first rare, obscure, and beyond our control. Professor Newcomb, however, turns all his arguments in favor of the second alternative; but, as briefly indicated in our comments this week, his logic is open to criticism. The length of the address precludes a fuller discussion of it before its publication.

Dr. H. P. Bowditch gave an informal account of some experiments, which indicated to a slight extent the power of reproducing drawings by thought-transference. Dr. C. S. Minot presented the results of an analysis of the figures obtained from the attempts to transfer the thought of a single digit from one person's mind to another's. It was noticed in the returns of experiments that there was one case in which the person guessed a larger number of digits correctly than was probable on mere chance. Now, it so happened that this person displayed the, presumably unconscious, habit of guessing the digits by skipping irregularly by two or three numbers from 0, 1, or 2, up to 8 or 9, and then back again. When, therefore, the thousand digits upon his record of guesses were tabulated, the result was obtained, that, upon the average, the fourth digit guessed by him before a 9 was 3.3; the third, 3.4; the second, 4.2; the first, 5.4. After a 9 he guessed down the scale with equal regularity. No other person showed this peculiarity: hence it was evident that this guesser had followed out his personal psychological bent, and had not been reading the mind of the agent, who had thought